IN THE SPECIFICATION:

Page one, after title, please insert the following subheading:

--FIELD OF THE INVENTION--

Page one, after line nine, please insert the following subheading:

--BACKGROUND OF THE INVENTION--

Please replace the first full paragraph on page 2, which starts "Often a simple corona" with the following:

Often a simple corona treatment is not sufficient and more ~~specialised~~ specialized methods have ~~has~~ to be employed to ensure a sufficient adhesion.

Please replace the second full paragraph on page 2, which starts "One possible method" with the following:

One possible method is described in WO 97/37844, where a method to obtain a coupling layer between the surface to be plated and the plated metal film are described. According to WO 97/37844, the coupling layer is formed by vacuum deposition of a monomer on the surface, which is subsequently polymerized ~~polymerised~~ by an irradiation process. To ensure a good coupling between the surface and the coupling layer, and between the coupling layer and the plated metal film, plasma treatment can be used. This process is especially suited for treatment of polymer films of infinite lengths, as the different processes (plasma treatment, deposition of coupling layer and polymerization ~~polymerisation~~ of coupling layer) are

carried out at different, separate, stations.

Please replace the last paragraph on page 2, which starts "The nature of this " with the following:

The nature of this process makes it furthermore not suitable for treatment of fluorine-containing polymers like ~~poly-tetra-flour-ethylene~~ polytetrafluoroethylene (PTFE).

Please replace the fourth paragraph on page 3, which starts "US 4,057,663 describes" with the following:

US 4,057,663 describes a method to make hydrophobic polymers suitable for electroless plating using a concentrate containing P_2O_5. This method is particularly suitable for polymers containing ~~fluor~~ fluorine, but not very useful for other polymers.

Page four, before line 5, please insert the following subheading:

--SUMMARY OF THE INVENTION--

Please replace the first paragraph on page 5, which starts "These objects" with the following:

These objects are achieved by a method of metallizing a surface of a solid polymer substrate comprising:

a) generating radicals on the substrate surface by subjecting it to a gas plasma at an intensity level that ensures creation of radicals in the polymer surface without depolymerization of the solid polymer substrate;

b) forming a layer on the substrate surface using a ~~by a~~ plasma enhanced polymerization process ~~employing~~ using one or more monomers ~~comprising~~ selected from ~~among cyano acrylate, mono-and diacrylates, such as acrylic acid, triethylene glycol diacrylate, glycidyl acrylat, isocyanates, such as 1,4-diisocyanobutane, toluenegiisocyanate, epoxy compounds, such as glycidyl methacrylate, preferably 2, 3-epoxypropyl methacrylate, allylic and vinylic compunds, such a vinyl aceteic acid, vinyl norbonene, vinyl pyrrolidone, vinyl trimethoxysilane, vinyl trimethylsilane allylene, ally-lalcohol, allyloxymethylsilane, allylphenol, allylurea a-allylethcourea (thiosine-amine), vinyl-alcohol or allyl-amine.~~ the group consisting of mono- and diacrylates, isocyanates, allylic compounds and vinylic compounds and mixtures thereof,

c) providing a short surface deposition using a PVD or CVD process to ~~deposit metal atoms, such as copper, tin, silver, palladium, platinum, or gold~~ form a deposit of metal atoms on the layer, and

d) optionally providing a metallization of the ~~surface by using a conventional electroless bath or~~ layer with an electroless bath, or by direct electrolytic metallization, when the metal deposit formed in c) has a thickness allowing electrolytic metallization.

Please replace the sixth paragraph on page 5, which starts "avoiding" with the following:

~~avoiding electroless metallization by using direct electrolytic metallization, when the metal layer formed in c) has a thickness allowing electrolytic metallization.~~

In a preferred embodiment, said monomers comprise mono- and diacrylates selected

from the group consisting of cyanoacrylate, 2-ethyl cyanoacrylate, acrylic acid, triethylene glycol diacrylate, glycidyl acrylate, and glycidyl methacrylate.

Please replace the paragraph bridging pages 5 and 6, which starts "Step b)" with the following:

~~Step b) may start (i) before step a) provided that step b) does not terminate until step a) is started, (ii) simultaneously with step a), (iii) during step a), or (iv) immediately after step a). Step c) may start before step b), simultaneously with step b), immediately after step b) or within 8 months after step b), preferably within 6 months. Step d) may follow step c) or start simultaneously with step c).~~

In another preferred embodiment, said monomers comprise isocyanates selected from the group consisting of 1,4-diisocyanobutane and toluene 2,4-diisocyanate.

Page 6, please insert the following new paragraphs after the paragraph bridging pages 5 and 6.

In another preferred embodiment, said monomers comprise allylic compounds selected from the group consisting of allylene, allylalcohol, allyloxymethylsilane, allylphenol, allylurea, and 1-allylthiourea (thiosine-amine).

In another preferred embodiment, said monomers comprise vinylic compounds selected from the group consisting of vinyl acetic acid, vinyl norbornene, vinyl pyrrolidone, vinyl trimethoxysilane, and vinyl trimethylsilane.

The metal deposit may comprise Pt, Ag, Pd, Cu, Sn, or Au. The monomers may

comprise one or more of cyanoacrylate and glycidyl methacrylate.

In a preferred embodiment, step b) comprises treatment of the surface with a monomer vapor comprising 0.5 to 90 mole-% of 2-ethyl cyanoacrylate vapor. In another preferred embodiment, step b) comprises treatment of the surface with a monomer vapor comprising between 10 and 60 mole-% of 2-ethyl cyanoacrylate vapor.

The monomer vapor may be formed by vaporization of a monomer mixture that, prior to the vaporization, consists essentially of 2-ethyl cyanoacrylate, an acid having the partial vapor pressure in the plasma which is lower than the partial vapor pressure of 2-ethyl cyanoacrylate, and up to 40 weight-% of a filler. The acid may have a partial vapor pressure in the plasma which is lower than half the partial vapor pressure of 2-ethyl cyanoacrylate. The acid may be a polyphosphoric acid and may be present prior to the vaporization in a concentration up to 10 weight-%.

In a preferred embodiment, the polymer substrate may be a polyolefine, an aryl-containing polymer, a diene-containing polymer, a silicone polymer, a fluorine-containing polymer, or copolymers thereof. In another preferred embodiment, the polymer substrate is polyethylene, polypropylene, polystyrene, polybutadiene, polyisoprene, silicone rubber, polytetrafluoroethylene, or copolymers thereof. The polymer substrate may be an injection molded polymer component, a polymer fiber, a polymer thread or a polymer filler.

In a preferred embodiment, the gas plasma is generated by excitation of the gas in a direct current (DC), low frequency (LF), audio frequency (AF), radio frequency (RF) or microwave generated electric field. The gas plasma may be generated in a low frequency (LF) or an audio frequency (AF) generated electric field of a plasma system, said plasma system comprising an electrode arrangement having electrodes arranged so that every third electrode is connected to different voltages.

In a preferred embodiment, in the plasma enhanced polymerization process of step (b), the monomers may be present in a vapor and have a monomer pressure of between 0.1 and 100000 Pa. In a preferred embodiment, the monomer pressure may be between 10 and 1000 Pa.

In a preferred embodiment, step a) is carried out for a period of between 0.01 and 1000 seconds, and step b) is carried out for a period of between 0.1 and 1000 seconds. In another preferred embodiment, step a) may be carried out for more than 30 seconds and less than 1000 seconds, and step b) may be started 10 to 30 seconds after step a). Step a) may be carried out for a period of between 10 and 60 seconds, and step b) may be carried out for a period of between 10 and 200 seconds.

In a preferred embodiment, step a) and step b) may be carried out at the same temperature. The temperature in both step a) and step b) may be between 250 and 450 K. Step a) and step b) may be carried out at the same total pressure. Steps a) and b) may be carried out at a total pressure of between 0.2 and 100000 Pa. In one embodiment, the total pressure may be between 10 and 1000 Pa.

In a preferred embodiment, the method is carried out with the following sequence of steps:

(i) step b) starts before step a) provided that step b) does not terminate until step a) is started; (ii) step b) starts simultaneously with step a); (iii) step b) starts during step a), or (iv) step b) follows immediately after step a);

wherein (i) step c) starts before step b), (ii) step c) starts simultaneously with step b), (iii) step c) follows immediately after step b) or within 8 months after step b); or

wherein (i) step d) follows step c) or (ii) step d) starts simultaneously with step c). In another preferred embodiment, step c) follows within 6 months after step b).

In yet another preferred embodiment, the plasma enhanced polymerization process comprises adding a vapor comprising the monomers to the gas plasma.

Please replace the fourth paragraph on page 6, which starts "The generation step" with the following:

The generation step a) is preferably~~, as stated in claim 11,~~ carried out for a period of between 0.01 and 1000 seconds, preferably between 1 and 500 seconds, more preferably between 10 and 60 seconds, and the treatment step b) is preferably carried out for a period of between 0.1 and 1000 seconds, preferably between 1 and 500 seconds, more preferably between 10 and 200 seconds.

Please replace the third paragraph on page 7, which starts "The monomer pressure" with the following:

The monomer pressure in step b) is preferably~~, as stated in claim 10~~ between 0.1 and 10000 Pa, more preferably between 10 and 1000 Pa.

Please replace the fourth paragraph on page 7, which starts "The temperature is" with the following:

The temperature is not important but should preferably~~, as stated in claim 14,~~ be the same under both step a) and step b) and preferably the temperature under both step a) and step b) is between 250 and 450 K, most preferably between 280 and 330 K.

Please replace the fifth paragraph on page 7, which starts "The total pressure" with the following:

The total pressure, i.e. the sum of the partial pressures of the air, optionally water vapor ~~vapour~~, the gas or plasma and the monomer, under step a) is preferably~~, as stated in claim 15,~~ equal to the total pressure under step b), the total pressure is preferably between 0.2 and 100000 Pa, more preferably between 0.2 and 10000 Pa, and most preferably between 10 and 1000 Pa.

Please replace the first paragraph on page 8, which starts "Preferably the polymer" with the following:

Preferably, ~~as stated in claim 6,~~ the polymer substrate is a polyolefine, such as PE, PP, or an aryl-containing polymer, such as polystyrene, a diene-containing polymer, such as polybutadiene, polyisoprene, a silicone polymer, such as silicone rubber, a fluorine-containing polymer, such as polytetrafluoroethylene ~~polytetrafluorethylene~~ or its co-polymers.

Please replace the fourth paragraph on page 8, which starts "The plasma" with the following:

The plasma can be generated by any known methods, but preferably~~, as stated in claim 9~~, the gas plasma is generated by excitation of a gas in a direct current (DC), low frequency (LF), audio frequency (AF), radio frequency (RF) or microwave (MW) generated electric field. Most preferably the gas plasma is generated by excitation of a gas in a direct current (DC) or by excitation using low frequency (LF).

Please replace the second paragraph on Page 9, which starts "Preferred embodiments" with the following:

Preferred embodiments for the invention ~~are specified in the claims 2-15~~ are described and claimed herein.

Please insert the following subheading before line 10 on page 9.

--DETAILED DESCRIPTION--

Please replace the fourth paragraph on page 10, which starts "Covering a " with the following;

Covering a 100x50x3 mm sheet of polytetrafluoroethylene ~~polytetrafluorethylene~~ (PTFE) with a conductive layer of metal.

Please rewrite the paragraph bridging pages 10 and 11 as follows:

Step 1

The sheet was subjected to an argon plasma discharge, generated as described above,

for 20 s at a pressure of 0.1 mbar. Hereafter a ~~vapour~~ vapor essentially comprising of 2-ethyl cyano acrylate and ~~glycidylmetacrylate~~ glycidyl methacrylate was let into the argon plasma at a pressure of 0.15 mbar for 30 s.

Please replace the second full paragraph on page 11, which starts "After Ag deposition" with the following:

After Ag deposition, the sheet was immersed in an electroless copper bath, ("SHIPLEY CUPOSIT 251 ELECTROLESS COPPER ~~Shipley Cuposit 251 Electroless Copper~~"). Due to the combined treatment in step 1 and 2 an adherent copper coating was formed where Ag was deposited.

Please replace the third full paragraph on page 12, which starts "The component was immersed", with the following:

Step 3

The component was immersed in an electroless copper bath, ("SHIPLEY CUPOSIT 251 ELECTROLESS COPPER ~~Shipley Cuposit 251 Electroless Copper~~"). Due to the combined treatment in steps 1 and 2 an adherent copper coating was formed where Pt was deposited on the PP component.

Please replace the last full paragraph on page 12, which starts "The component was immersed", with the following:

Step 3

The component was immersed in an electroless copper bath, ("SHIPLEY CUPOSIT 251 ELECTROLESS COPPER ~~Shipley Cuposit 251 Electroless Copper~~"). Due to the

combined treatment in steps 1 and 2 an adherent copper coating was formed where Ag was deposited.